

Prevalence of Underweight Among Adults Aged 20 and Over: United States, 1960–1962 Through 2015–2016

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Poor nutrition or underlying health conditions can result in adults being underweight. Results from the 2015–2016 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 1.5% of U.S. adults aged 20 and over are underweight. Body mass index (BMI), expressed as weight in kilograms divided by height in meters squared (kg/m^2), is commonly used to classify underweight (BMI less than 18.5) among adults aged 20 and over.

The prevalence of underweight among adults aged 20 and over by age and sex from 1988–1994 through 2015–2016 is shown in [Table 1](#). Because surveys before 1988 did not include persons over age 74, [Table 2](#) shows the prevalence of underweight for adults aged 20–74 by age and sex for all survey periods dating to 1960. The total and sex-specific estimates for both tables are age adjusted.

NHANES, conducted by the National Center for Health Statistics, is a multistage probability sample of the civilian noninstitutionalized population of the United States. A household interview and a physical examination are conducted for each survey participant. During the physical examination, conducted in a mobile examination center, height and weight are measured as part of a more comprehensive set of body measurements. These measurements are taken by trained health technicians, using standardized measuring procedures and equipment. Observations for pregnant women and for persons missing a valid height or weight measurement are not included in the data analysis.

For additional information on NHANES methods, visit: <https://www.cdc.gov/nchs/nhanes/analyticguidelines.aspx>.

This *Health E-Stat* supersedes the earlier version, “Prevalence of Underweight Among Adults Aged 20 and Over: United States, 1960–1962 Through 2013–2014,” available from: https://www.cdc.gov/nchs/data/hestat/underweight_adult_13_14/underweight_adult_13_14.htm.

Table 1. Prevalence of underweight among adults aged 20 and over, by age and sex: United States, 1988–1994 through 2015–2016

Survey period	Sample size (n)	Total ¹	Age group (years)			Sex ¹	
			20–39	40–59	60 and over	Men	Women
Percent (standard error)							
1988–1994	16,235	2.3 (0.2)	3.0 (0.4)	1.7 (0.3)	2.3 (0.2)	1.1 (0.2)	3.5 (0.3)
1999–2000	4,117	2.0 (0.2)	2.9 (0.4)	1.3 (0.2)	1.4 (0.4)	1.1 (0.2)	2.7 (0.5)
2001–2002	4,413	1.9 (0.2)	2.9 (0.5)	0.9 (0.2)	1.6 (0.3)	1.0 (0.3)	2.7 (0.3)
2003–2004	4,431	1.7 (0.2)	2.8 (0.3)	1.0 (0.4)	0.8 (0.2)	1.4 (0.3)	2.0 (0.4)
2005–2006	4,356	1.9 (0.3)	2.4 (0.6)	1.4 (0.4)	1.6 (0.3)	1.2 (0.4)	2.5 (0.4)
2007–2008	5,550	1.6 (0.3)	1.9 (0.5)	1.5 (0.5)	1.1 (0.2)	1.0 (0.3)	2.2 (0.4)
2009–2010	5,926	1.8 (0.3)	2.0 (0.3)	2.1 (0.5)	1.3 (0.2)	1.0 (0.2)	2.6 (0.5)
2011–2012	5,181	1.7 (0.2)	2.5 (0.3)	0.9 (0.2)	1.6 (0.4)	0.7 (0.1)	2.6 (0.4)
2013–2014	5,455	1.4 (0.2)	1.9 (0.4)	0.8 (0.3)	1.6 (0.4)	1.3 (0.3)	1.6 (0.2)
2015–2016	5,337	1.5 (0.2)	2.5 (0.4)	0.8 (0.3)	0.9 (0.3)	1.2 (0.2)	1.8 (0.4)

¹Age adjusted by the direct method to U.S. Census 2000 estimates using age groups 20–39, 40–59, and 60 and over. Pregnant women are excluded from the analysis.

NOTE: Underweight is body mass index less than 18.5 kg/m².

SOURCE: NCHS, National Health and Nutrition Examination Survey.

Table 2. Prevalence of underweight among adults aged 20–74, by age and sex: United States, 1960–1962 through 2015–2016

Survey period	Sample size (n)	Total ¹	Age group (years)			Sex ¹	
			20–39	40–59	60–74	Men	Women
Percent (standard error)							
1960–1962	6,126	4.0 (0.2)	5.7 (0.4)	2.3 (0.3)	3.7 (0.6)	2.2 (0.2)	5.7 (0.4)
1971–1974	12,911	3.6 (0.2)	4.9 (0.3)	2.2 (0.3)	3.8 (0.4)	2.4 (0.3)	4.8 (0.3)
1976–1980	11,765	3.0 (0.1)	4.2 (0.3)	1.9 (0.3)	2.7 (0.4)	1.6 (0.2)	4.4 (0.3)
1988–1994	14,319	2.3 (0.2)	3.0 (0.4)	1.7 (0.3)	1.9 (0.3)	1.1 (0.2)	3.5 (0.3)
1999–2000	3,603	2.0 (0.2)	2.9 (0.4)	1.3 (0.2)	1.1 (0.2)	1.2 (0.2)	2.7 (0.5)
2001–2002	3,916	1.8 (0.2)	2.9 (0.5)	0.9 (0.2)	1.4 (0.4)	1.0 (0.3)	2.6 (0.4)
2003–2004	3,756	1.7 (0.2)	2.8 (0.3)	1.0 (0.4)	0.7 (0.3)	1.4 (0.3)	2.1 (0.4)
2005–2006	3,835	1.8 (0.3)	2.4 (0.6)	1.4 (0.4)	1.1 (0.5)	1.3 (0.4)	2.4 (0.5)
2007–2008	4,876	1.6 (0.3)	1.9 (0.5)	1.5 (0.5)	0.9 (0.2)	0.9 (0.3)	2.3 (0.4)
2009–2010	5,279	1.9 (0.3)	2.0 (0.3)	2.1 (0.5)	1.2 (0.3)	1.0 (0.3)	2.7 (0.5)
2011–2012	4,674	1.7 (0.2)	2.5 (0.3)	0.9 (0.2)	1.2 (0.5)	0.7 (0.1)	2.6 (0.4)
2013–2014	4,940	1.4 (0.2)	1.9 (0.4)	0.8 (0.3)	1.7 (0.5)	1.4 (0.3)	1.5 (0.3)
2015–2016	4,778	1.5 (0.2)	2.5 (0.4)	0.8 (0.3)	0.8 (0.3)	1.2 (0.3)	1.9 (0.4)

¹Age adjusted by the direct method to U.S. Census 2000 estimates using age groups 20–39, 40–59, and 60–74. Pregnant women are excluded from the analysis.

NOTES: Underweight is body mass index less than 18.5 kg/m². National Health Examination Survey 1960–1962 and National Health and Nutrition Examination Surveys 1971–1974 and 1976–1980 did not include persons over age 74.

SOURCES: NCHS, National Health Examination Survey, 1960–1962, and National Health and Nutrition Examination Surveys 1971–1974, 1976–1980, 1988–1994, and 1999–2016.